People, progress, & products
§1. Why edit human genomes?
§2. How we might edit human genomes?
§3. Altering or choosing persons?
§4. Why the argument about risk is a red herring…
§5. Should we drink the enhancement kool aid?
§6. Learning from obsolescence
Genome editing is for enhancement

Health?

(“curing” genetic diseases)?

Genetic relatedness?

Human enhancement!

JOIN THE CONVERSATION ON SELF-DIRECTED HUMAN EVOLUTION
Dr. George Church
One way to edit the human genome...

Somatic cell

Induced Pluripotent Stem cells (same genome)

CRISPR/Cas9

GM IPS cells

Egg Stem cells (GM genome)

GM egg

PGD

GM embryo

GM Baby
Another way to edit the human genome...

Somatic cell

Induced Pluripotent Stem cells (same genome)

CRISPR/Cas9

GM IPS cells

Somatic Cell Nuclear Transfer

de-nucleated egg

Brave woman

GM embryo

GM Baby
Altering persons or choosing them?
Would you have had a better life if your parents had a child five years younger than you in your place?

YES / NO
Why the argument about risk is a

• First use will inevitably be experimental
  – Risk of children being born with disabilities
• But this risk is endemic to reproductive technologies
  – We still don’t know if IVF is safe
  – “Natural” pregnancy involves significant risks
• Coming into existence is risky!
Scientists cheer vote to allow three-person embryos

British decision could be a watershed to approving mitochondrial replacement technique in other countries.

Ewen Callaway

03 February 2015
Should we drink the enhancement kool aid?

- Genes + environment
- Multi-gene traits
Making people obsolescent?

Rapid progress in gene editing technologies

+ “One shot” enhancement

=> Obsolescence of enhancements
Learning from obsolescence?

The social implications of obsolescence?

- People will spend most of their lives with obsolete enhancements
- Increased risk of option-regret for parents
- Contraction of the period of full powers
- Social stratification along generational lines
- Implications for the self-understanding of human beings?
Design, designers, and human freedom?

The power of the designers over the designed?

An empirical threat to freedom?

A political relationship?

Technics vs dialogue....
The temporal dimension of obsolescence?

- Enhancements are better
- Different “generations” of humans
- Obsolete people
- Implications for the self-understanding of human beings?